

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

Date Analyzed: 12/21/04

**RESULTS FROM THE ANALYSIS OF THE AQUEOUS SAMPLES
FOR PERCENT OF ACID**

Sample ID

Laboratory ID

Percent of Acid

M94826A Large

412097-01

11

M94826B Small

412097-02

9.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

Date Analyzed: 12/21/04

**RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES
FOR SPECIFIC GRAVITY
@ 15.56 °C**

Sample ID

Laboratory ID

Specific Gravity

M94826A Large

412096-01

1.28

M94826B Small

412096-02

1.26

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

Date Extracted: 12/17/04

Date Analyzed: 12/17/04

**RESULTS FROM THE ANALYSIS OF THE AQUEOUS SAMPLE
FOR FINGERPRINT CHARACTERIZATION
BY INDUCTIVELY COUPLED PLASMA (ICP)
EMISSION SPECTROSCOPY**

Samples Processed Using Method 3005A

The Metals Were Found at Approximate Levels Indicated

Results Reported as mg/L (ppm)

Sample ID: M94826A Large

Laboratory ID: 412096-01

Iron 38,000 ppm

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

Date Extracted: 12/17/04

Date Analyzed: 12/17/04

**RESULTS FROM THE ANALYSIS OF THE AQUEOUS SAMPLE
FOR FINGERPRINT CHARACTERIZATION
BY INDUCTIVELY COUPLED PLASMA (ICP)
EMISSION SPECTROSCOPY**

Samples Processed Using Method 3005A

The Metals Were Found at Approximate Levels Indicated

Results Reported as mg/L (ppm)

Sample ID: M94826B Small

Laboratory ID: 412096-02

Iron 31,000 ppm

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

**QUALITY ASSURANCE RESULTS
FROM ANALYSIS FOR PERCENT OF ACID**

Laboratory Code: 412097-02 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Percent of Acid	9.5	9.5	0	0-20

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/29/04

Date Received: 12/09/04

Project: % of Acid, PO# M94826, F&BI 412096

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF PRODUCT SAMPLES
FOR SPECIFIC GRAVITY
@ 15.56 °C**

Laboratory Code: 411087-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Specific Gravity	0.873	0.874	0.11	0-2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 29, 2004

DUPLICATE COPY

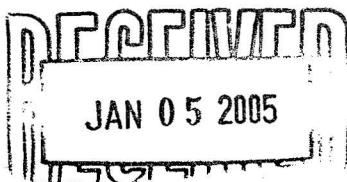
INVOICE # 04ACU1229-1

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project % of Acid, PO# M94826, F&BI 412096 - Results of testing requested
by Gerry Thompson for material submitted on December 9, 2004.

2 samples analyzed for Specific Gravity @ \$25 per sample	\$ 50.00
2 samples analyzed for Percent Acid Content @ \$50 per sample	100.00
2 samples analyzed for Total Iron by Method 6010B @ \$30 per sample	60.00
2 samples analyzed for Fluoride by Method 300.0 @ \$25 per sample	<u>50.00</u>
Amount Due	\$ 260.00

FEDERAL TAX ID # (b) (6)



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

29 December 2004

Charlene Morrow
Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029
RE: Charlene Morrow

Enclosed are the results of analyses for samples received by the laboratory on 12/10/04 16:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cherie Howland
Client Services Representative

North Creek Analytical, Inc.
Environmental Laboratory Network

AKC-0008038



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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541.383.9310 fax 541.382.7588
Anchorage 2000 W. International Airport Road, Suite A10, Anchorage, AK 99502-1119
~~907.569.9200 fax 907.569.9210~~

Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029

Project: Charlene Morrow
Project Number: 412096
Project Manager: Charlene Morrow

Reported:
12/29/04 08:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M94826A Large	B4L0342-01	Other wet	12/09/04 12:00	12/10/04 16:15
M94826B Small	B4L0342-02	Other wet	12/09/04 12:00	12/10/04 16:15

North Creek Analytical - Bothell

Cherie Howland, Client Services Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

North Creek Analytical, Inc.
Environmental Laboratory Network

Page 1 of 4

AKC-0008039



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907.563.9200 fax 907.563.9210

Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029

Project: Charlene Morrow
Project Number: 412096
Project Manager: Charlene Morrow

Reported:
12/29/04 08:40

Anions by EPA Method 300.0
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
M94826A Large (B4L0342-01) Other wet Sampled: 12/09/04 12:00 Received: 12/10/04 16:15									
Fluoride	52400	4000	mg/kg	2000	4L23024	12/22/04	12/22/04	EPA 300.0	
M94826B Small (B4L0342-02) Other wet Sampled: 12/09/04 12:00 Received: 12/10/04 16:15									
Fluoride	32100	2000	mg/kg	1000	4L23024	12/22/04	12/22/04	EPA 300.0	

North Creek Analytical - Bothell

Cherie Howland, Client Services Representative

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North Creek Analytical, Inc.
Environmental Laboratory Network

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AKC-0008040



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Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029

Project: Charlene Morrow
Project Number: 412096
Project Manager: Charlene Morrow

Reported:
12/29/04 08:40

Anions by EPA Method 300.0 - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch 4L23024: Prepared 12/22/04 Using General Preparation								
Blank (4L23024-BLK1)								
Fluoride	ND	2.00	mg/kg					
LCS (4L23024-BS1)								
Fluoride	8.41	2.00	mg/kg	8.00		105 90-110		
LCS Dup (4L23024-BSD1)								
Fluoride	8.41	2.00	mg/kg	8.00		105 90-110	0.00 10	
Duplicate (4L23024-DUP1)								
Fluoride	51500	4000	mg/kg		52400		1.73 25	
Matrix Spike (4L23024-MS1)								
Fluoride	47600	4000	mg/kg	7.88	52400	-60900 75-125		Q-03

North Creek Analytical - Bothell

Cherie Howland, Client Services Representative

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North Creek Analytical, Inc.
Environmental Laboratory Network

Page 3 of 4

AKC-0008041



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Friedman & Bruya
3012 16th Ave W
Seattle, WA/USA 98119-2029

Project: Charlene Morrow
Project Number: 412096
Project Manager: Charlene Morrow

Reported:
12/29/04 08:40

Notes and Definitions

Q-03 The percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

North Creek Analytical - Bothell

Cherie Howland, Client Services Representative

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North Creek Analytical, Inc.
Environmental Laboratory Network

Page 4 of 4

AKC-0008042

SAMPLE CHAIN OF CUSTODY

5420342

AKC-0008043

Send Report To Charlene Morrow
 Company F&BI
 Address see below
 City, State, ZIP _____
 Phone # _____ Fax # _____

SAMPLERS (signature)	
PROJECT NAME/NO. <u>412096</u>	PO # <u>F-936</u>
REMARKS	

Page # _____ of _____

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
 Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED								Notes
						O&G by 1664 no silica	Total Hg by 7470/7471	Total As, Cu, Pb, Zn by 6020	TCLP Hg by 7470 (sample is TCLP extract)	Total RCRA Metals by 6020/7470	Fluoride by 300.0			
M 94826A Large	01	12-9-04		acid	1						X			
M 94826B Small	02	12-9-04		acid	1						X			

samples were not @2-6c upon receipt!

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	SIGNATURE		PRINT NAME		COMPANY	DATE	TIME
	Relinquished by: <u>Charlene Morrow</u>		Charlene Morrow		F&BI	12-10-04	0800
	Received by: <u>Jon Hollers</u>		Jon Hollers		NCA	12/10/04	1615
	Relinquished by:						
	Received by:						

16.10c w/o

412096

SAMPLE CHAIN OF CUSTODY

CM 12/09/04

AI,

Send Report To

Gerald Thompson

Company

ALASKA Copper works

Address

628 S. Howard St

City, State, ZIP

Seattle WA 98134

Phone #

206-382-8319

Fax #

206-382-4305

SAMPLERS (signature)

PROJECT NAME/NO.

% of Acid

PO #

M94826

REMARKS

Page # of

TURNAROUND TIME

☐ Standard (2 Weeks)☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	% of Acid	SG, FE	Fluoride		
M94826A	01	12/9/04	1:15	HNO3	1							X	X	X		
CARGE																
M94826B	02	12/9/04	1:15	HNO3	1							X	X	X		
Small																

Friedman & Bruya, Inc.
3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

G. Thompson

James Bruya

COMPANY

ACW

FBI

DATE

12/9/04

12/9/04

TIME

1:57pm

2:00pm

AKC-0008044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 29, 2004

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

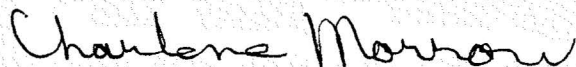
Included are the results from the testing of material submitted on December 9, 2004 from the % of Acid, PO# M94826, F&BI 412096 project. There are 6 pages included in this report. The samples were sent to North Creek Analytical for fluoride analysis. Review of the enclosed report indicates that all quality assurance was acceptable.

Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Charlene Morrow
Chemist

Enclosures
ACU1229R.DOC